

## CLAIMS

What is claimed is:

1. In a computing device, a method of adding to a directory  
5 information tree comprising the steps of:
  - a) accessing a template name;
  - b) reading a template according to said accessed template name, said  
template comprising structural information of said directory information tree;
  - c) receiving a first set of attributes from an application program, said  
10 received first set of attributes not including a location within said directory  
information tree;
  - d) constructing an entry comprising: i) said received first set of attributes;  
and ii) a destination location within said directory information, said destination  
location generated using said structural information; and
  - e) adding said constructed entry to said directory information tree at said  
15 destination location.
2. A method as described in Claim 1 wherein said template further  
comprises a second set of attributes, said second set comprising default values  
20 for inclusion in said constructed entry.

3. A method as described in Claim 1 wherein said template further comprises a third set of attributes, said third set comprising attributes that are required to have assigned values.

5 4. A method as described in Claim 1 wherein said template further comprises information specifying a verification program for verifying one or more attributes of said first set of attributes.

10 5. A method as described in Claim 1 wherein said template further comprises:

i) a second set of attributes, said second set comprising default values for inclusion in said constructed entry;

15 ii) a third set of attributes, said third set comprising attributes that are required to have assigned values; and

iii) information specifying a program for verifying one or more attributes of said first set of attributes.

6. A method as described in Claim 5 wherein said template is an XML file.

20 7. A method as described in Claim 1 further comprising the step of detecting the condition of said constructed element being unacceptable for addition to said directory information tree.

8. A method as described in Claim 1 wherein said template is an XML file.

5 9. A method as described in Claim 1 wherein said directory information tree is an LDAP directory.

10. In a computing device, a method of adding an entry to directory information tree comprising the steps of:

10 a) passing a template name to an application program interface, said named template comprising structural information of said directory information tree; and

15 b) passing information for said entry to said application program interface, said passed information not including a location for said entry within said directory information tree.

11. A method as described in Claim 10 wherein said template is an XML file.

20 12. A method as described in Claim 10 wherein said directory information tree is an LDAP directory.

13. In a computing device, a method of searching a directory information tree comprising the steps of:

- a) accessing a template name;
- b) reading a template according to said accessed template name, said

5 template comprising:

- i) structural information of said directory information tree; and
- ii) a first set of attributes;
- c) accessing a second set of attributes from an application program, said accessed second set not included in said first set;
- d) constructing a query object comprising:
  - i) said first set of attributes;
  - ii) said second set of attributes;
- e) performing a query operation using said query object.

14. A method as described in Claim 13 wherein said template further comprises information specifying a program for verifying one or more attributes in said second set of attributes.

15. A method as described in Claim 13 wherein said template is an  
20 XML file.

16. A method as described in Claim 13 wherein said directory information tree is an LDAP directory.

17. A computer readable medium having instructions stores therein for implementing a program module that directs the addition of an entry to a directory information tree, to function in a specified manner, said instructions for:

- 5 a) accessing a template name;
- b) reading a template according to said received template name, said template comprising structural information of said directory information tree;
- c) receiving a first set of attributes from an application program, said  
10 received first set of attributes not including a location within said directory information tree;
- d) constructing an entry comprising:
  - i) said received first set of attributes; and
  - ii) a destination location within said directory information, said  
15 destination location generated using said structural information; and
- e) adding said constructed entry to said directory information tree at said destination location.

18. A computer readable medium as described in Claim 17 wherein  
20 said template further comprises a second set of attributes, said second set comprising default values for inclusion in said constructed entry.

19. A computer readable medium as described in Claim 17 wherein said template further comprises a third set of attributes, said third set comprising attributes which are required to have assigned values.

5 20. A computer readable medium as described in Claim 17 wherein said template further comprises information specifying a verification program for verifying one or more attributes of said first set of attributes.

21. A computer readable medium as described in Claim 17 wherein said template further comprises:

- i) a second set of attributes, said second set comprising default values for inclusion in said constructed entry;
- ii) a third set of attributes, said third set comprising attributes that are required to have assigned values; and
- iii) information specifying a program for verifying one or more attributes of said first set of attributes.

22. A computer readable medium as described in Claim 21 wherein said template is an XML file.

20 23. A computer readable medium as described in Claim 17 further comprising the step of detecting the condition of said constructed entry being unacceptable for addition to said directory information tree.

24. A computer readable medium as described in Claim 17 wherein said template is an XML file.

5 25. A computer readable medium as described in Claim 17 wherein said directory information tree is an LDAP directory.

26. A computer readable medium having computer program instructions stored therein for implementing a program module that directs the addition of an entry to a directory information tree, to function in a specified manner, the program module comprising instructions for:

a) passing a template name to an application program interface, said named template comprising structural information of said directory information tree; and

b) passing information included for said entry to said application program interface, said passed information not including location for said entry within said directory information tree.

27. A computer readable medium as described in Claim 26 wherein  
20 said template is an XML file.

28. A computer readable medium as described in Claim 26 wherein said directory information tree is an LDAP directory.

29. In a computing device, a method of adding an entry to a directory information tree comprising the steps of:

A) passing a template name to an application program interface, said named  
5 template comprising structural information of said directory information tree;

B) receiving said template name;

C) reading a template according to said received template name,  
said template comprising:

i) structural information of said directory information tree;

ii) a second set of attributes, said second set comprising default  
attribute values;

iii) a third set of attributes, said third set comprising attributes that  
are required to have assigned values; and

iv) information specifying a verification program;

D) passing a first set of attributes to said application program interface, said  
passed first set of attributes not including a location for said entry within said  
directory information tree;

E) receiving said first set of attributes;

F) verifying of one or more attributes of said first set of attributes using said  
20 verification program;

G) constructing said entry comprising:

i) said received first set of attributes;

ii) said second set of attributes; and



iii) a destination location within said directory information, said destination location generated using said structural information;

H) detecting the condition of said constructed entry being unacceptable for addition to said directory information tree; at least one said condition being the  
5 absence of a value for any attribute in said third set of attributes;

I) if said constructed entry is unacceptable, generating an error condition;  
and

J) adding said constructed entry to said directory information tree at said destination location.

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